

Abstract Of The Invention

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2 The System-on-Chip (SOC) interconnection apparatus and system discloses an
3 internal switching fabric that interconnects, via standard connection ports, one or more
4 requestors and one or more addressable targets on a single semiconductor integrated
5 circuit. Each target has a unique address space, may or may not have internal
6 arbitration, and may be resident (i.e., on-chip) memory, a memory controller for resident
7 or off-chip memory, an addressable bridge to a device, system, or subsystem, or any
8 combination thereof. Targets and requestors are connected to the internal switching
9 fabric using target and requestor connection ports. The internal switching fabric routes
10 signals between requestors and targets using one or more decoder/router elements that
11 determine which target is the designated target using an internal system memory map.
12 Dedicated arbiters may be included for targets without internal arbitration.